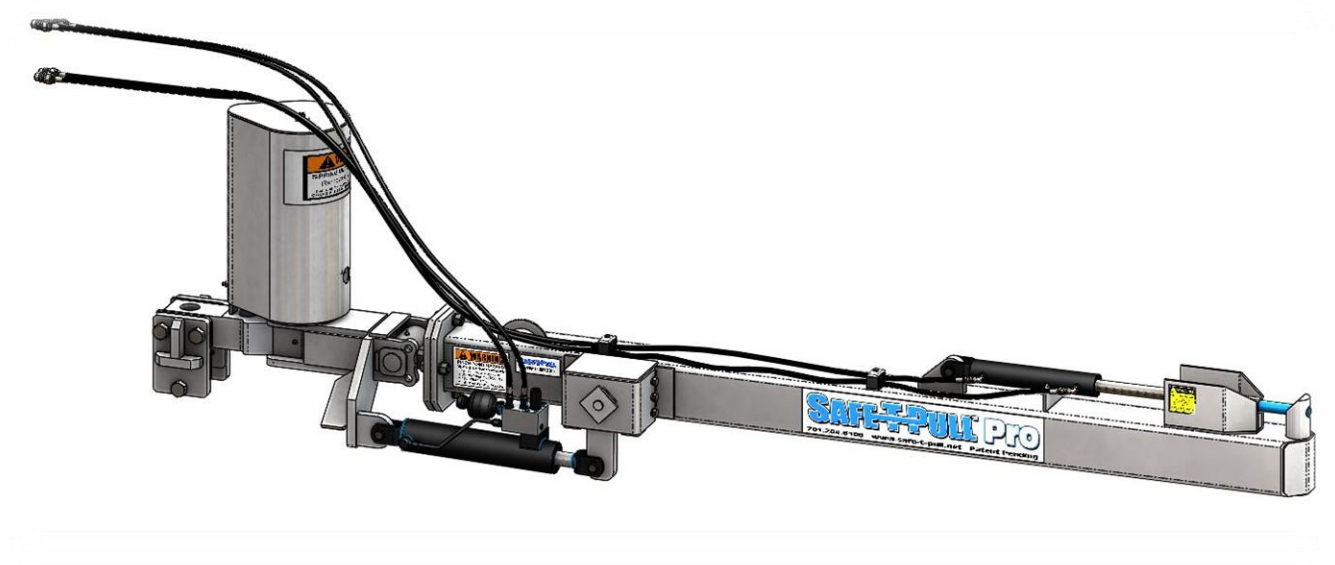
SAFE-T-PULL™ Pro

User Manual



Safe-T-Pull Inc.

2015

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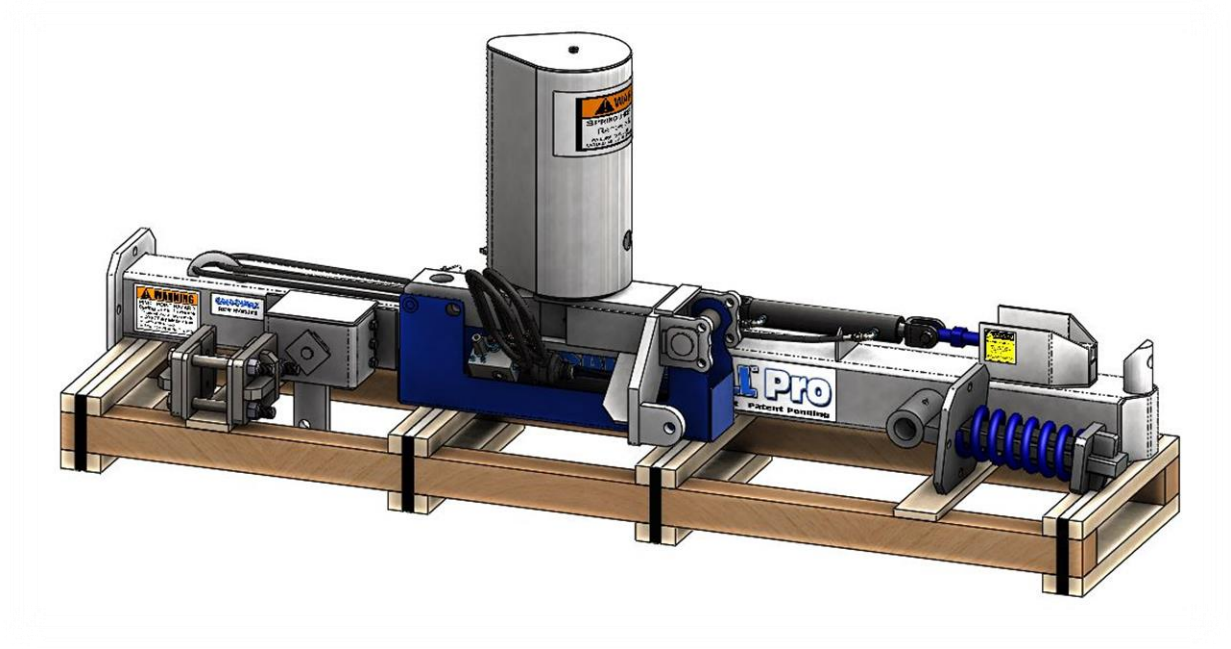
1. Before You Begin

Disclaimer

The information and specifications contained in this document are subject to change without notice. Safe-T-Pull Inc. assumes no responsibility or liability for any errors or omissions that may appear in this manual. Safe-T-Pull Inc. reserves the right to update the existing document or to create a new document to correct any errors or omissions. You can receive the latest version of this document from Safe-T-Pull Inc. by calling your local dealer during their business hours.

What Is Included

- Puller Tube Assembly
- Swivel Assembly
- Spring Tongue Assembly
- Drawbar Side-plate Assembly
- Smart Lift Cylinder with hydraulic hoses
- Safe-T-Pull PRO User's Manual
- Manual cylinder lock with PTO clips
- Manual Locking Pin



Unpacking Instructions

Immediately upon receipt, carefully unpack the product and check the packaging to make sure you have received all the parts indicated above and that they are in good condition.

Claims

If the packaging or the material inside the packaging (the product and included accessories) appear damaged from shipping, or show signs of mishandling, upon receipt notify the carrier immediately, not Safe-T-Pull Inc. Failure to do so in a timely manner may invalidate your claim with the carrier. In addition, keep the container and all the packing material for inspection. For other issues such as missing components or parts, damage not related to shipping, or concealed damage, file a claim with Safe-T-Pull Inc. immediately after receiving the merchandise.

Contact Us

Email – sales@safe-t-pull.net
Mail - Safe-T-Pull
P.O. Box 94
Park River, ND 58270

Web – www.safe-t-pull.net

Safety Information

Please read the following safety notes carefully before working with the Safe-T-Pull PRO. These notes include important safety information about installation, usage, and maintenance.

All personnel working on, with, or near a Safe-T-Pull PRO must wear safety toed shoes, safety glasses, reflective safety vest, protective gloves, and hard hat.

The Safe-T-Pull PRO may raise or lower unexpectedly. When servicing the Safe-T-Pull PRO be sure the pulling vehicle is OFF and the Puller Arm is in the lowered position.

When traveling on public roads or during extended periods of storage, install the Manual Cylinder Lock. This will prevent the Puller Arm from accidentally lowering.

Rules for safe hydraulic operation

- Park hydraulic machinery where children cannot reach it.
- If your pulling vehicle has hydraulic flow control capabilities, (usually measured in GPM) decrease the flow to the minimum amount required to operate the Safe-T-Pull PRO (2 GPM)
- Block the Safe-T-Pull PRO when you must work on the system while raised; DO NOT rely solely on the hydraulic lift.
- Avoid servicing the hydraulic system while the machine engine is running.
- Do not remove cylinders until the Safe-T-Pull PRO is resting securely on the ground or safety stands or blocks; shut off engine.

- Before disconnecting hydraulic hoses, relieve all hydraulic pressure.
- Be sure all hose connections are tight and hoses are not damaged.
- Use a non-volatile cleaning solvent to wash parts.

Three common hydraulic system hazards

1. Burns from very hot, high pressure fluid.
2. Injuries and illness from flailing hydraulic lines.
3. Hydraulic fluid injection into the body.

Ways to prevent hazards from occurring

- When attempting to detect pinhole leaks in hydraulic hoses run a piece of cardboard or wood along the hose.
- NEVER touch hydraulic hoses when they are under pressure.
- NEVER connect a low pressure hose, cylinder, or ANY aftermarket equipment to the Safe-T-Pull PRO.
- Ensure all hydraulic components are in proper working condition on the pulling vehicle.
- Periodically check for oil leaks and worn hoses.
- Keep contaminants from hydraulic oil and replace filters regularly.
- Lubricate cylinder rods with protective lubricant to avoid rusting.

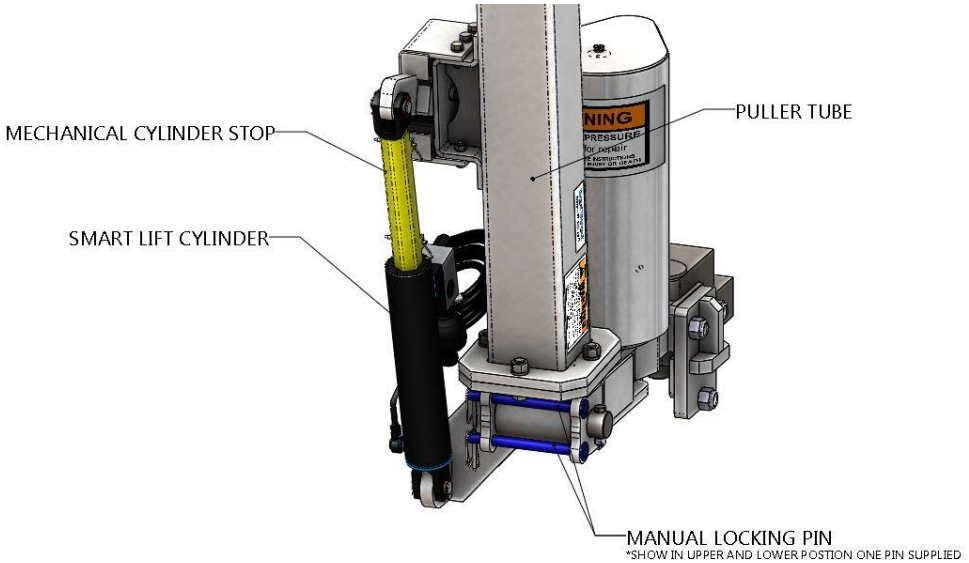
Safety Locks

As a safety feature, 2014 and newer Safe-T-Pull PRO's come equipped with Manual Puller Arm Locks. The Safe-T-Pull PRO may be locked up in the raised positon to prevent "settling" or lowering.

Raised Position

When the Puller Arm is raised all of the way up, a pin may be installed into the top hole position to keep it from lowering. Also us the Manual Cylinder Lock to choke the rod of the cylinder.

WARNING: **These pins will NOT stop the puller arm from being raised or lowered hydraulically.**


MECHANICAL CYLINDER STOP
SMART LIFT CYLINDER
PULLER TUBE
MANUAL LOCKING PIN
*SHOW IN UPPER AND LOWER POSTION ONE PIN SUPPLIED

2. Setup

Unpacking Instructions

Before discarding any packaging, be sure all included parts are accounted for. Remove all strapping and/or banding on the package. For claims please visit section 1 of this document.

Assembly

If your Safe-T-Pull PRO has been palletized for shipping, assembly is required. After unpacking, follow these steps to assemble your Safe-T-Pull PRO.

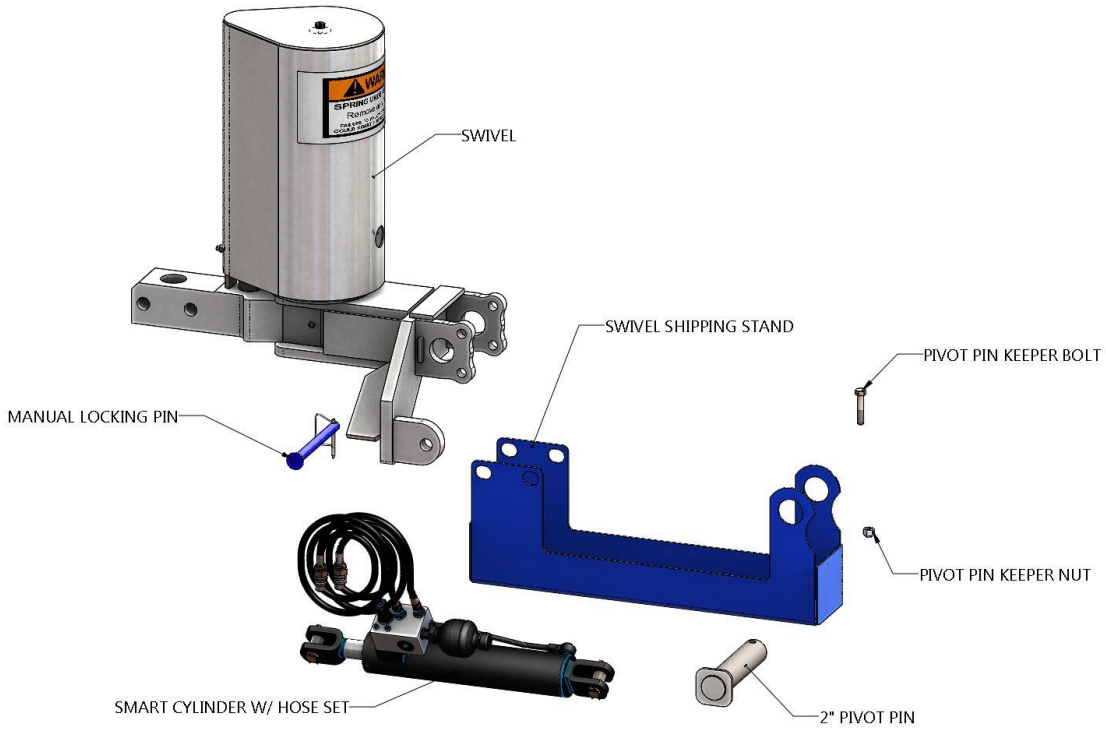
Recommended Tools:

- Lifting device (fork lift, skid-steer, cherry picker)
- Chain or lifting strap
- Two ¾" wrenches or sockets
- Two 11/16" wrenches
- Two 1 1/8" wrenches or sockets
- One 1 1/2" wrench or socket
- One 1 7/16" wrench or socket

WARNING: All lifting equipment must be rated for 1,000 pounds (453.5kg) or more!

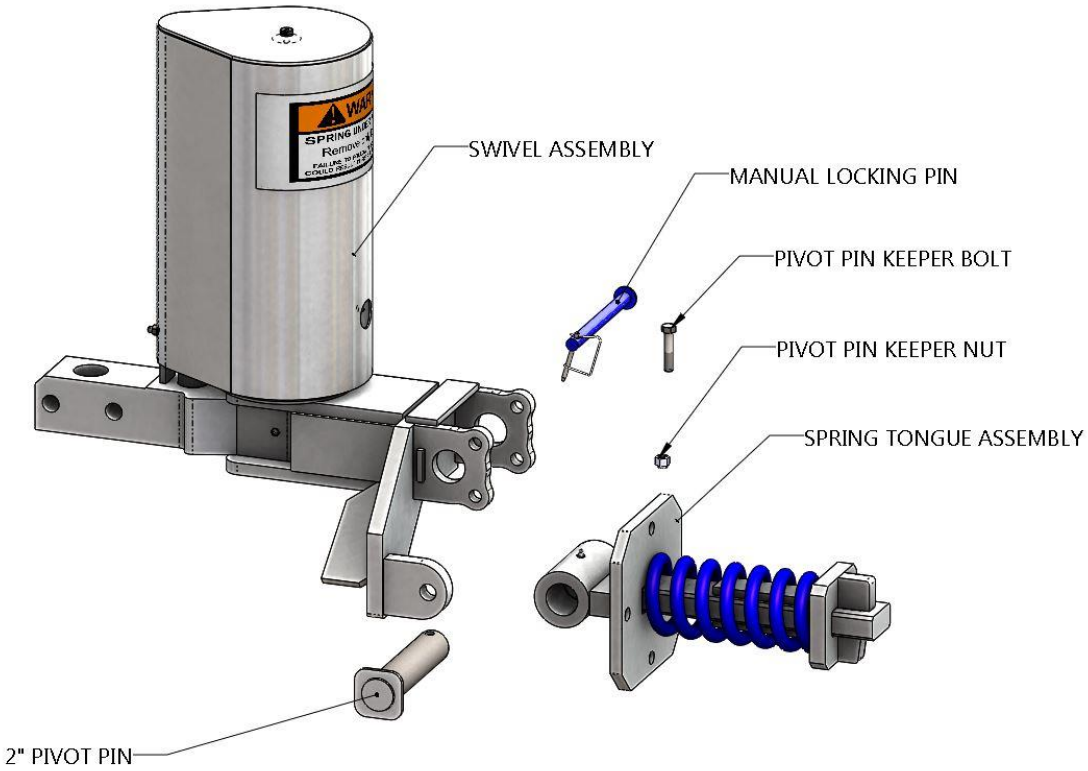
Step 1: Remove the swivel assembly by lifting it out of its stand using a lifting strap or chain. It works best to remove the "Dust Cover" first to "choke" a lifting strap around the large compression spring.

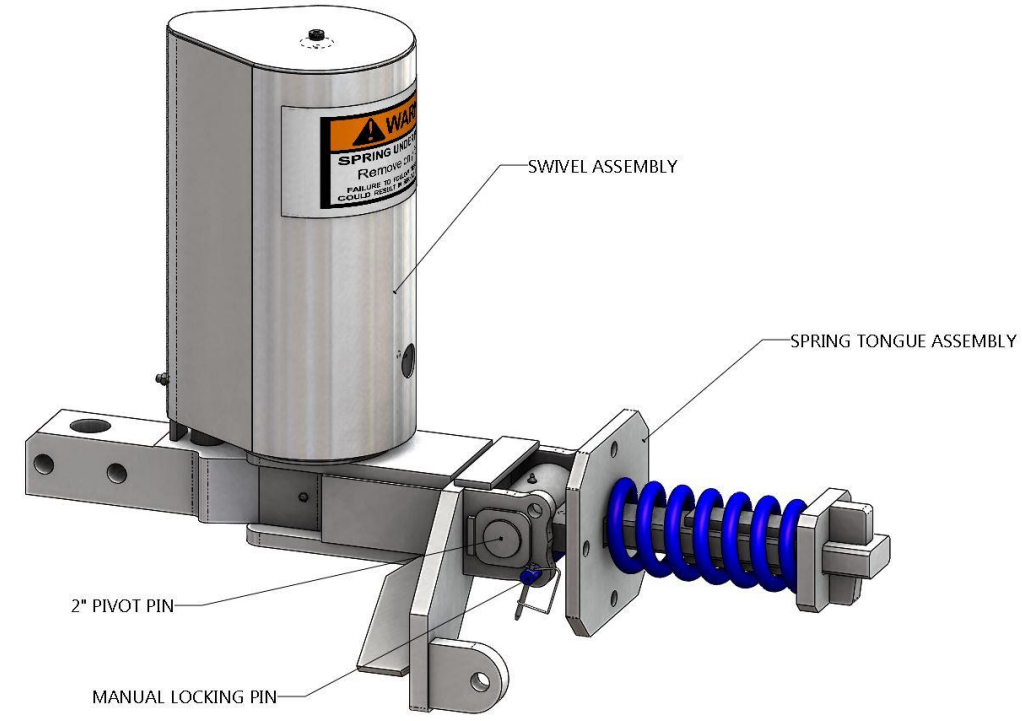
Note: Two ¾" wrenches or sockets required.



Step 2: Pin the Spring Tongue onto the Swivel Assembly. Bolt the pin into place with the included ½" bolt and nylock nut.

Note: Two ¾" wrenches or sockets required.

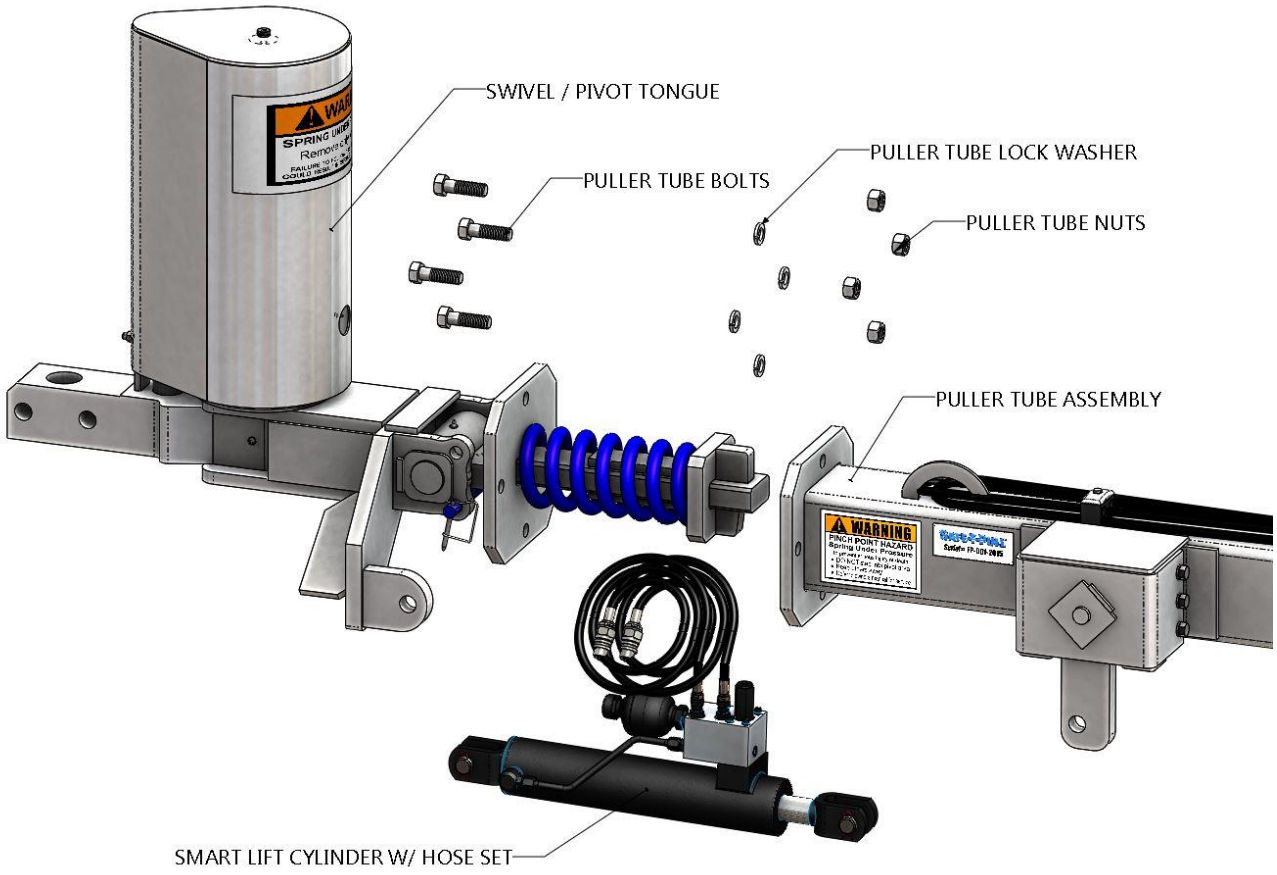




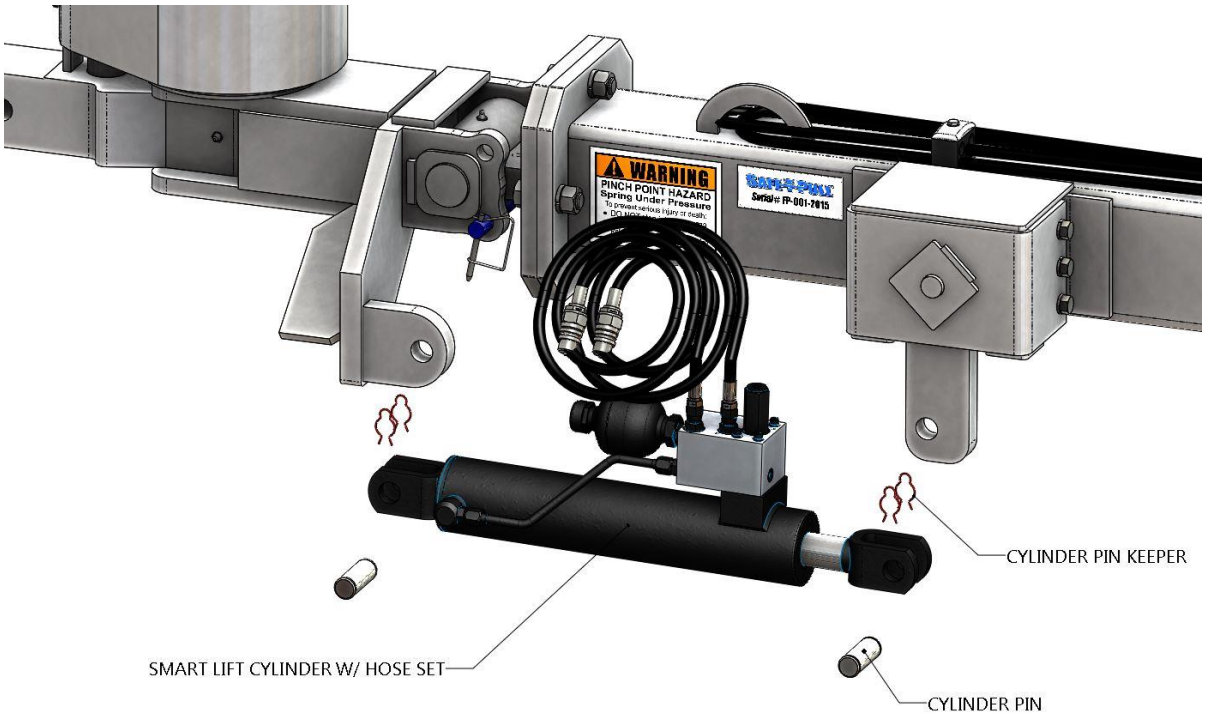
Step 3: Align the puller tube assembly and swivel assemblies as shown below. Slide the Spring Tongue into the Puller Tube Assembly.

Step 4: Bolt the Puller Tube and Swivel assemblies together with the four included ¾" bolts, lock washers, and nuts.

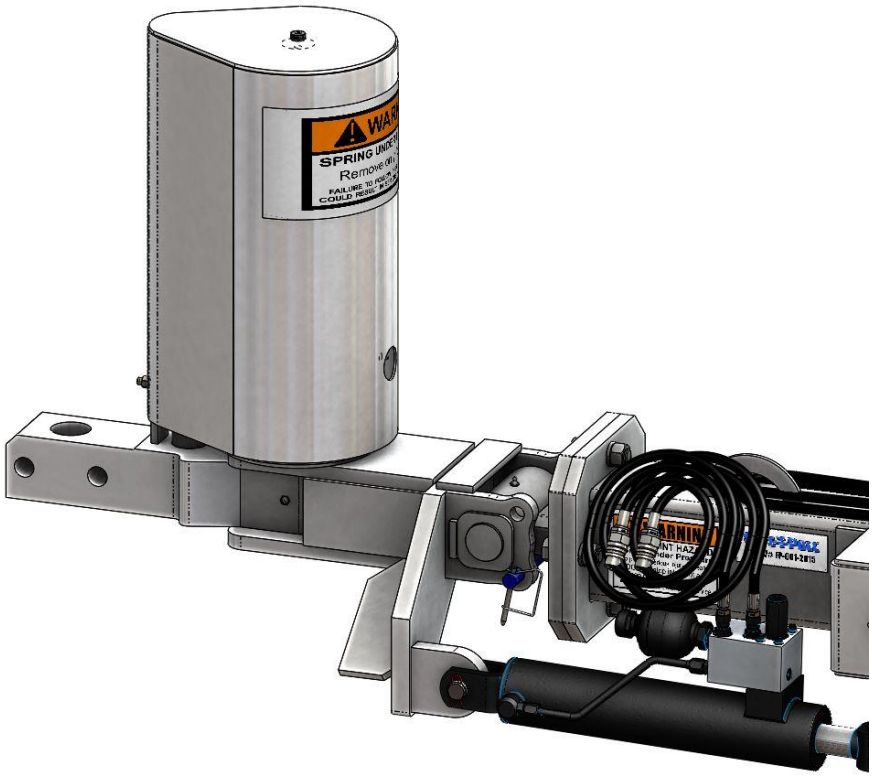
Note: Two 1 1/8" wrenches or sockets required



Step 5: Using the provided pins, attach the *Smart Lift Cylinder* as shown below.



Step 6: Attach the hydraulic hoses to the *Smart Lift Cylinder.*
Note: Two 11/16" wrenches required

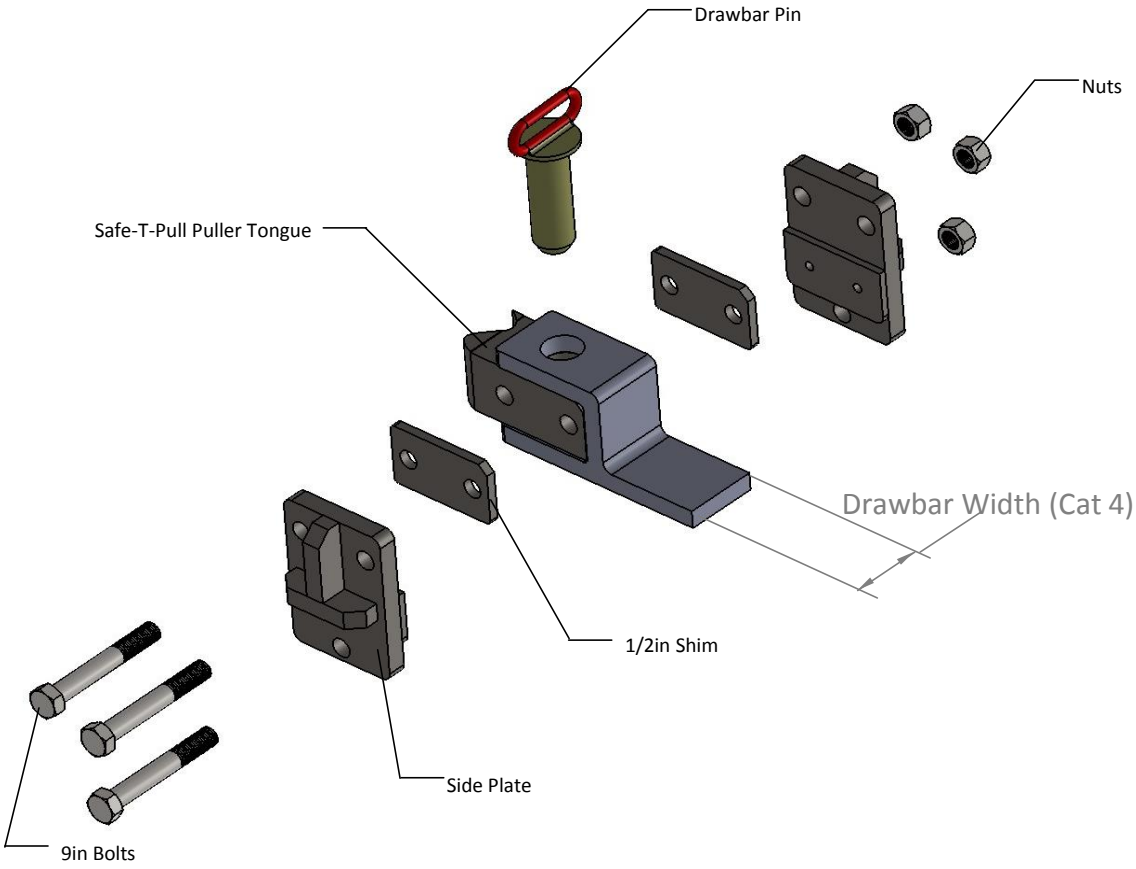


Installation

After assembling your Safe-T-Pull PRO, follow these steps to install the puller to your pulling vehicle.

Installation Instructions

Step 1: Use a lifting device to align the tongue of the Safe-T-Pull PRO into your tractor's drawbar.



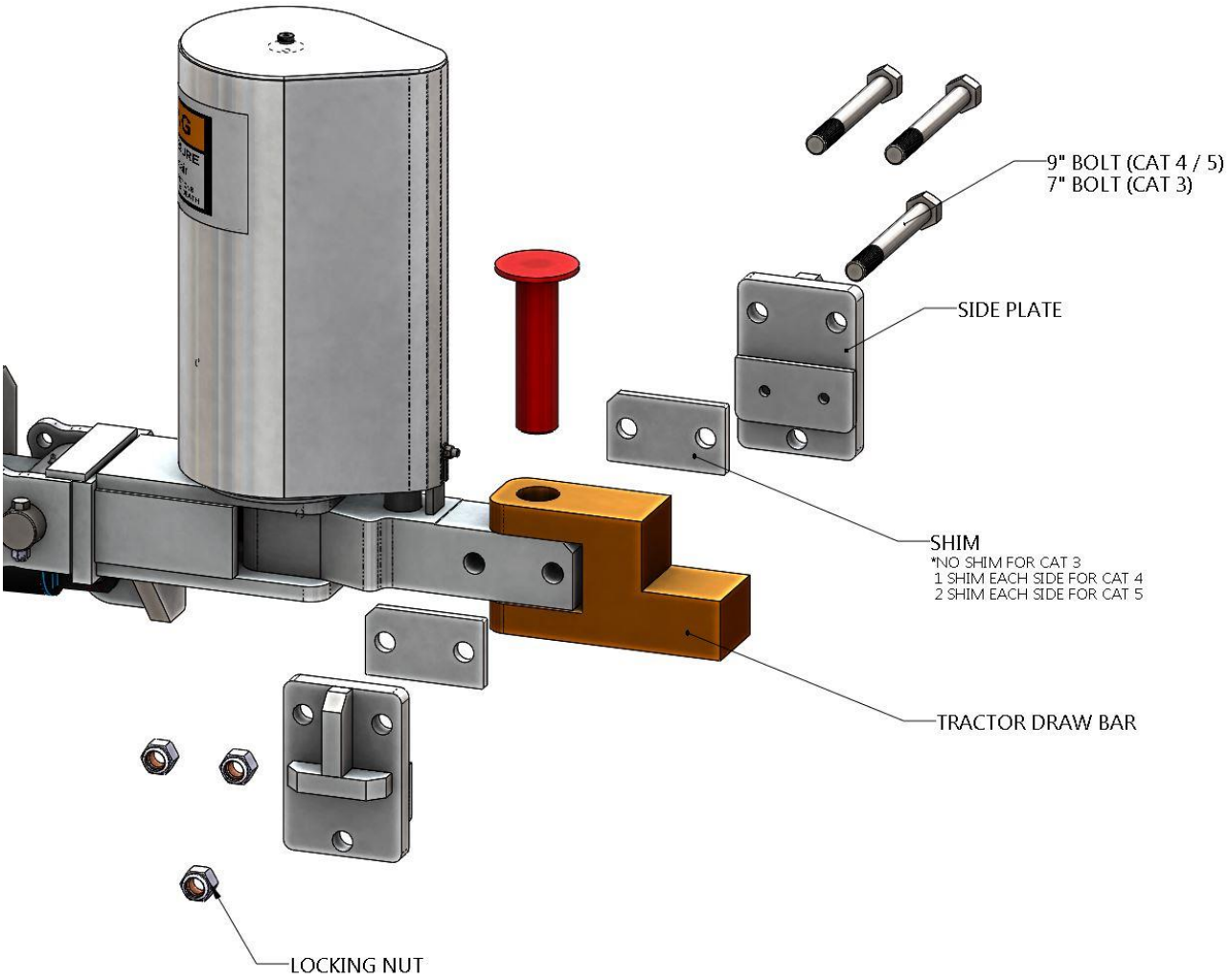
Step 2: Slide your tractor's pin into the drawbar. Be sure to use the correct bushings according to your drawbar width and pin size.

Note: Category 3 drawbar requires a bushing for the puller tongue
Category 4 drawbar requires no bushings
Category 5 drawbar requires two bushings for the tractor drawbar

Step 3: Tighten the three Drawbar Side-Clamp bolts to lock the Safe-T-Pull PRO into place. Be sure to use the correct shims according to your drawbar width.

Note: Category 3 drawbar requires no shims
Category 4 drawbar requires one ½" shim per side
Category 5 drawbar requires two ½" shims per side

(Picture on Next Page)


9" BOLT (CAT 4 / 5)
7" BOLT (CAT 3)
SIDE PLATE
SHIM
*NO SHIM FOR CAT 3
1 SHIM EACH SIDE FOR CAT 4
2 SHIM EACH SIDE FOR CAT 5
TRACTOR DRAW BAR
LOCKING NUT

Step 4: Push your four hydraulic hoses into your tractor's ports.

***CAUTION*: Ensure that all hydraulic equipment is in proper working order. Visit the *Safety Information* section in this document for more information.**

Step 5: Extend and retract both the Lift Cylinder and the Pin Cylinder several times to fill the lines with hydraulic fluid.

NOTE: If this step is missed your Safe-T-Pull PRO may not work properly. This may take up to several minutes.

3. Operation Instructions

Pre-Operation Maintenance

Before every operation of your Safe-T-Pull PRO, an inspection and pre-operation maintenance should be done to ensure all components are in operating order:

1. Check hydraulic fluid in the pulling vehicle to make sure levels are adequate.
2. Check hydraulic hoses for cuts, cracks, pressure bubbles, or other damage.
   NOTE: Steel braiding should NEVER be visible
3. Check hydraulic fittings for dents, cuts, leaks, or other signs of damage.
4. Check to make sure all hydraulic hoses are securely fastened to their correct fittings.
5. Check to make sure all hydraulic cylinder pins are secured with correctly installed hitch clips and/or bolts.
6. Grease the four grease zerks.
7. Check to be sure no pins are worn.

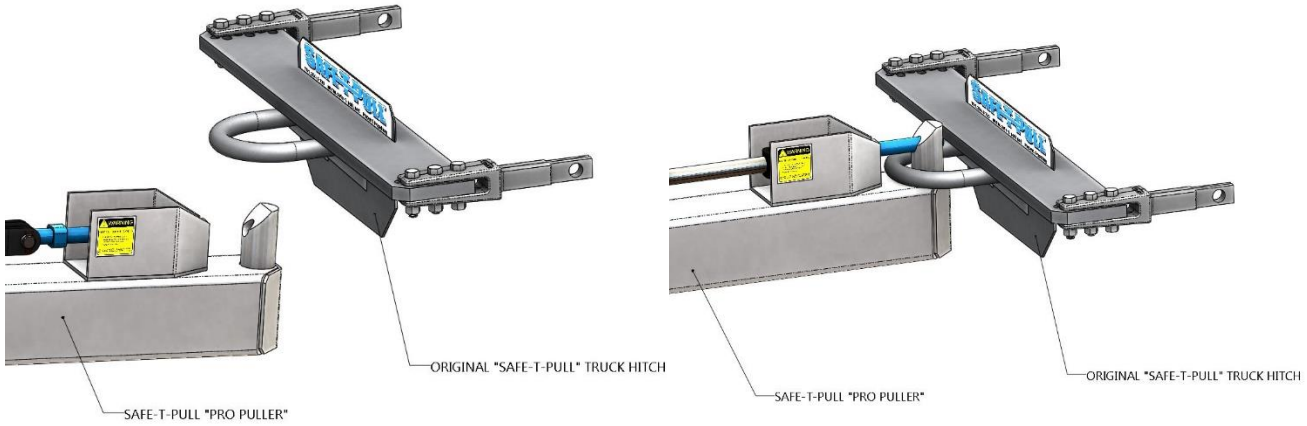
NOTE: If your Safe-T-Pull PRO is being used continuously, pre-operation maintenance should be done before EVERY shift change or EVERY 12 hours, whichever comes first.

Operation Instructions

Hooking up:

- Be sure ALL persons are clear of the operating area.
- With the Safe-T-Pull PRO arm in the lowered position (but not on the ground), back the pulling vehicle up to the stuck vehicle. (A decrease in engine RPMs may be necessary for more precise control)
- Once the Safe-T-Pull PRO's hook pin is directly under the Safe-T-Pull Truck Hitch pulling loop, raise the Safe-T-Pull PRO up (extend the lift cylinder) and into the Truck Hitch pulling loop.
  - ***WARNING:*** **For your safety NEVER use the Safe-T-Pull PRO for pulling on unauthorized products.**
- Close the Pin (extend the Pin Cylinder) to lock in the Truck Hitch.

To hook up, back the Safe-T-Pull Pro under the Truck Hitch.
Lift the puller arm into the hitch loop and close the latch pin.

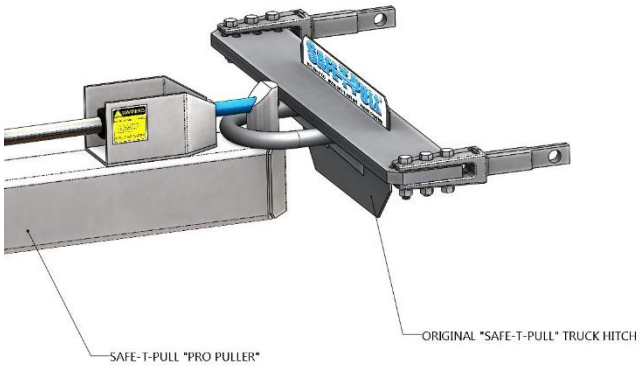


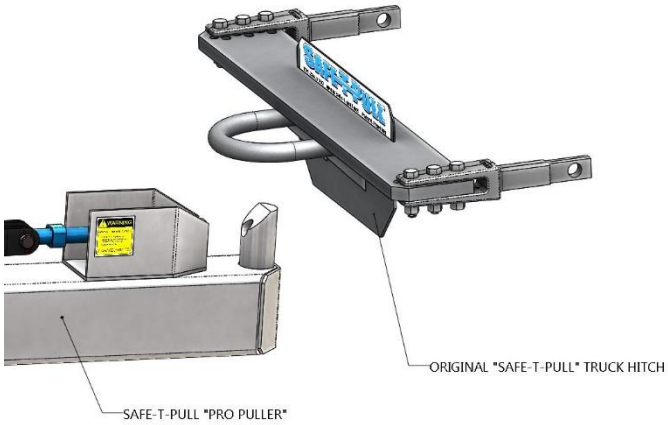
Unhooking:

- Open the lock pin (retract the Pin Cylinder)
- Lower the Safe-T-Pull PRO (retract the Lift Cylinder). If there is tension between the hook pin of the puller and the pulling loop of the Truck Hitch, the puller may not lower. In this case, a decrease in ground speed by the pulling vehicle may be required to free the pulling arm from the Truck Hitch.
- Once the Safe-T-Pull PRO is clear of the Truck Hitch, raise the pulling arm up (extend the lift cylinder) to keep it from dragging on the ground.

NOTE: **Using a Safe-T-Pull PRO with unauthorized products will void your warranty.**

To unhook, open the latch pin, lower the puller arm, and drive away.





4. Technical Information

Product Maintenance

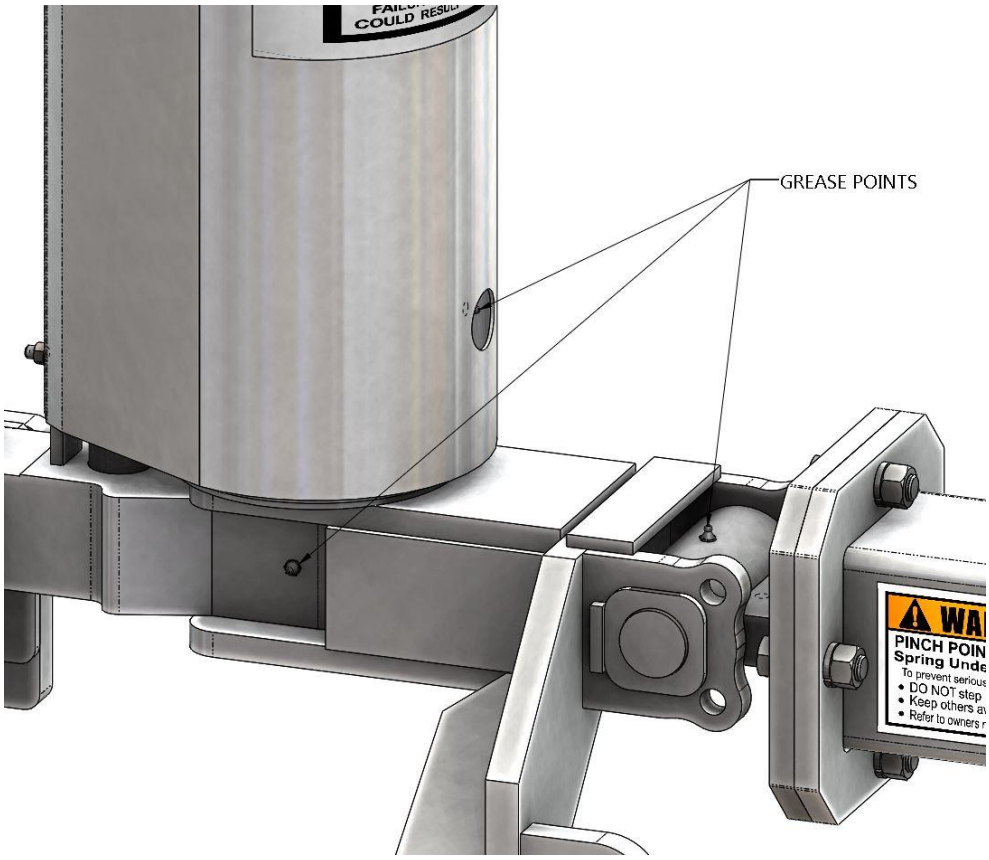
For proper operation ensure the following equipment is in proper operating condition.

Hydraulic system

- Check hydraulic fluid in the pulling vehicle to make sure levels are adequate.
- Check hydraulic hoses for cuts, cracks, pressure bubbles, or other damage.
  CAUTION: Steel braiding should NEVER be visible
- Check hydraulic fittings for dents, cuts, leaks, or other signs of damage.
- Check to make sure all hydraulic hoses are securely fastened to their correct fittings.
- Check to make sure all hydraulic cylinders pins are secured with correctly installed hitch clips and/or bolts.

Grease

- **Grease the three grease points as shown**



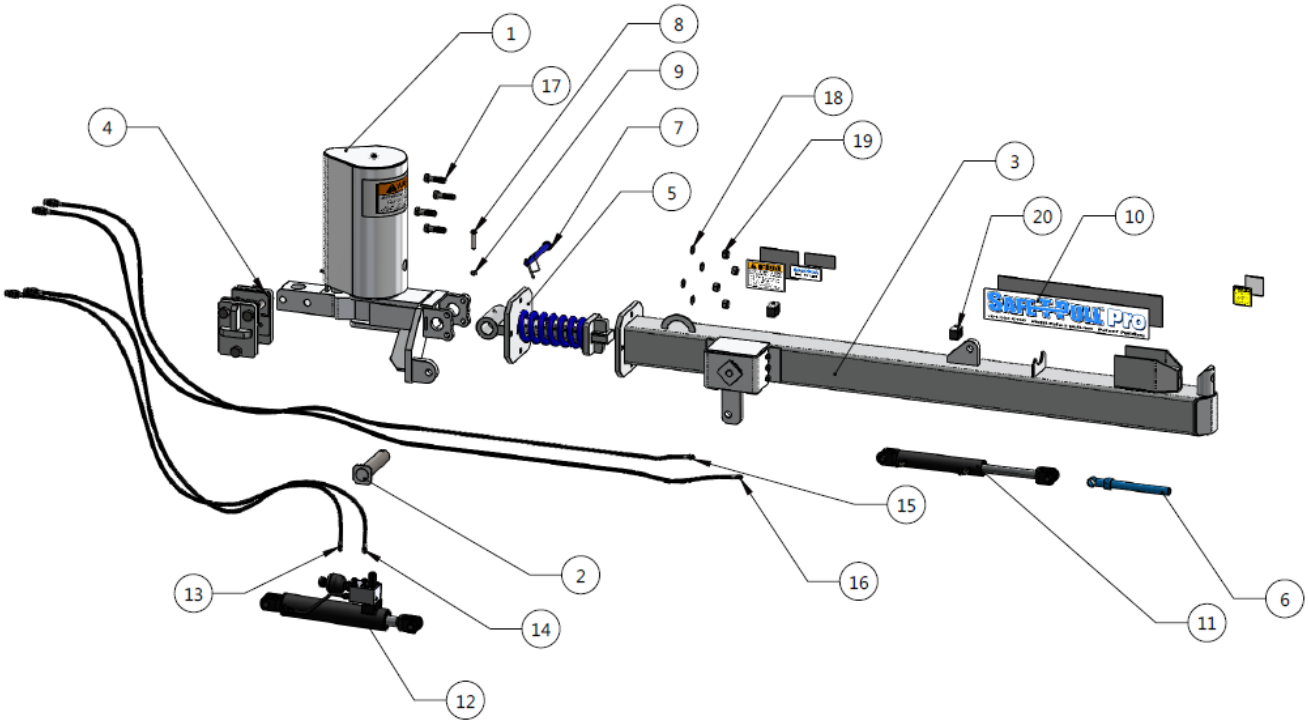
5. Technical Specifications

Specifications

Dimensions – Length: 10’8” Width: 16.5” Height: 33.25”
Weight – 670 lbs.
Hydraulic Power Source – Pull vehicle
System Voltage – N/A
Max psi – 3000 psi

Replacement Parts

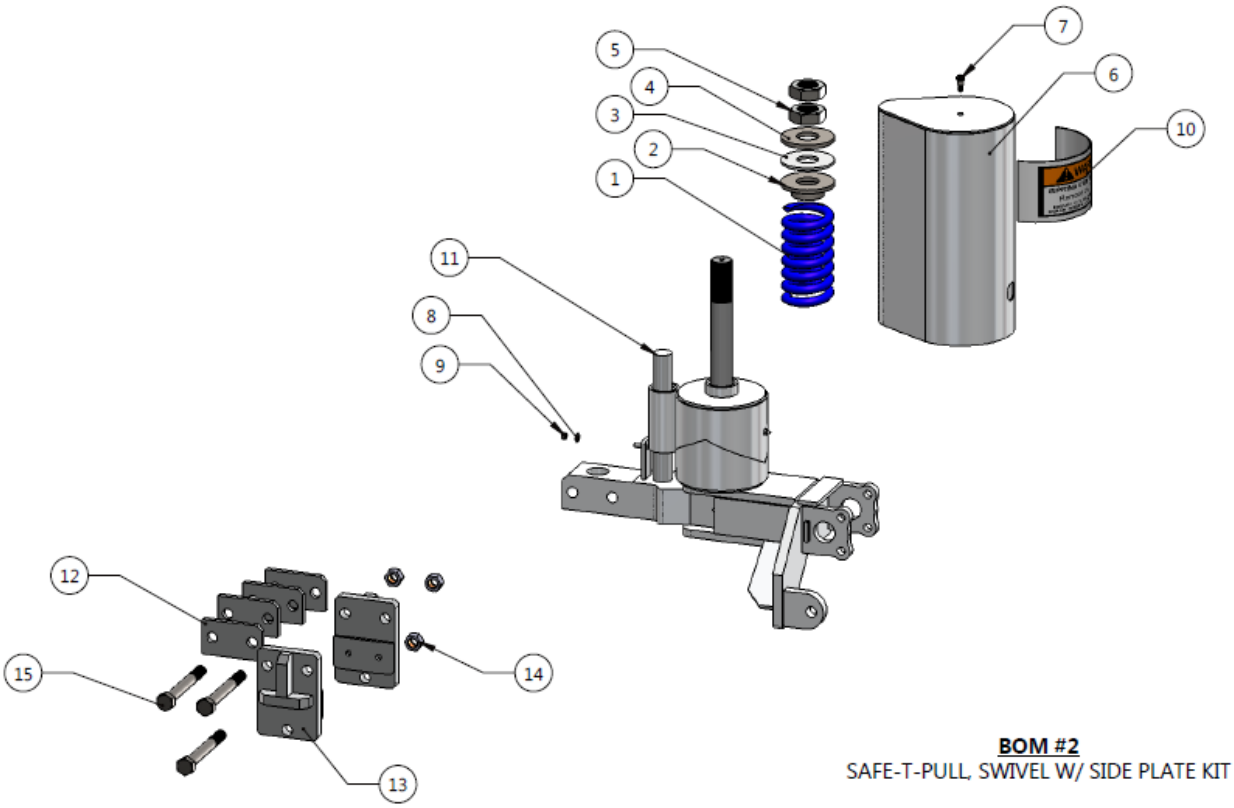
Contact your authorized Safe-T-Pull Dealer or manufacturer representative to order replacement parts.



BOM #1

SAFE-T-PULL, PRO PULLER

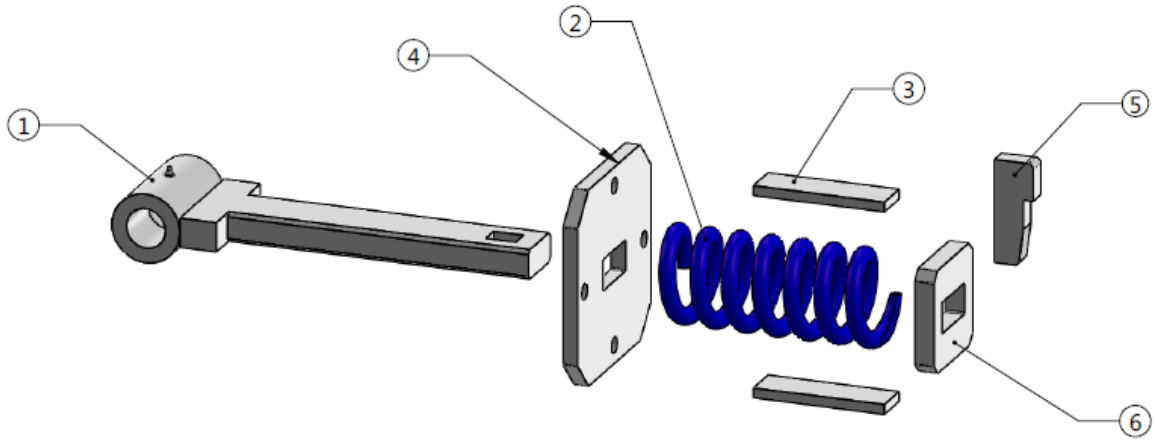
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FP-15005	STP PRO PULLER, SWIVEL TONGUE SUB WELDMENT	1
2	FP-012	STP PRO PULLER, PIVOT PIN WELDMENT	1
3	FP-028	STP PRO PULLER, TUBE WELDMENT	1
4	FP-031	STP PRO PULLER, DRAW BAR SIDE PLATE FULL ASSEMBLY	1
5	FP-15019	STP PRO PULLER, SPRING TONGUE ASSEMBLY	1
6	CP-003	STP COMMON PULLER, LOCKING PIN WELDMENT	1
7	CP-006	STP PRO PULLER, MANUAL LOCKING PIN W/CLIP	1
8	XP-194	HBOLT 0.5000-13x2.5x1.25	1
9	XP-266	NYLOCNUT 0.50-13	1
10	XP-186	STP PRO PULLER, STICKER KIT	1
11	XP-002	STP COMMON PULLER, HITCH PIN LOCKING CYLINDER	1
12	XP-004	STP PRO PULLER, SMART LIFT CYLINDER	1
13	XP-179	STP COMMON HYDRAULIC HOSE ASSEMBLY - 9' LONG (W/ENDS)	1
14	XP-179	STP COMMON HYDRAULIC HOSE ASSEMBLY - 9' LONG (W/ENDS)	1
15	XP-182	STP COMMON HYDRAULIC HOSE ASSEMBLY - 13' LONG (W/ENDS)	1
16	XP-183	STP COMMON HYDRAULIC HOSE ASSEMBLY - 14' LONG (W/ENDS)	1
17	XP-100	HBOLT 0.7500-10x2.75x1.75	4
18	XP-101	LW 0.75	4
19	XP-102	HNUT 0.7500-10	4
20	XP-003	HOSE GUIDE	2



BOM #2
SAFE-T-PULL, SWIVEL W/ SIDE PLATE KIT

BOM #2
SAFE-T-PULL, SWIVEL W/ SIDE PLATE KIT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	XP-114	STP COMMON PULLER, D20 SPRING (353)	1
2	FP-009	STP PRO PULLER, SPRING RETAINER SUB WELDMENT	1
3	FP-160	STP PRO PULLER, SPRING RETAINER PIN WASHER	1
4	FP-174	STP PRO PULLER, SPRING RETAINER WASHER	1
5	XP-014	HJNUT 2.000-12	2
6	FP-008	STP PRO PULLER, SPRING COVER SUB WELDMENT	1
7	XP-143	SHSC 0.375-16X.5X.5	1
8	XP-131	FW 0.3750	1
9	XP-221	HNUT 0.3750-16	1
10	XP-294	STP PRO PULLER, LABEL - SWIVEL SPRING	1
11	FP-135	STP PRO PULLER, CENTERING PIN	1
12	FP-126	STP PRO PULLER, DRAW BAR SHIM	4
13	FP-018	STP PRO PULLER, DRAW BAR SIDE PLATE WELDMENT	2
14	XP-192	NUT, 1-8, NYLOCK	3
15	XP-193	HBOLT 1.0000-8x9x2.5	3

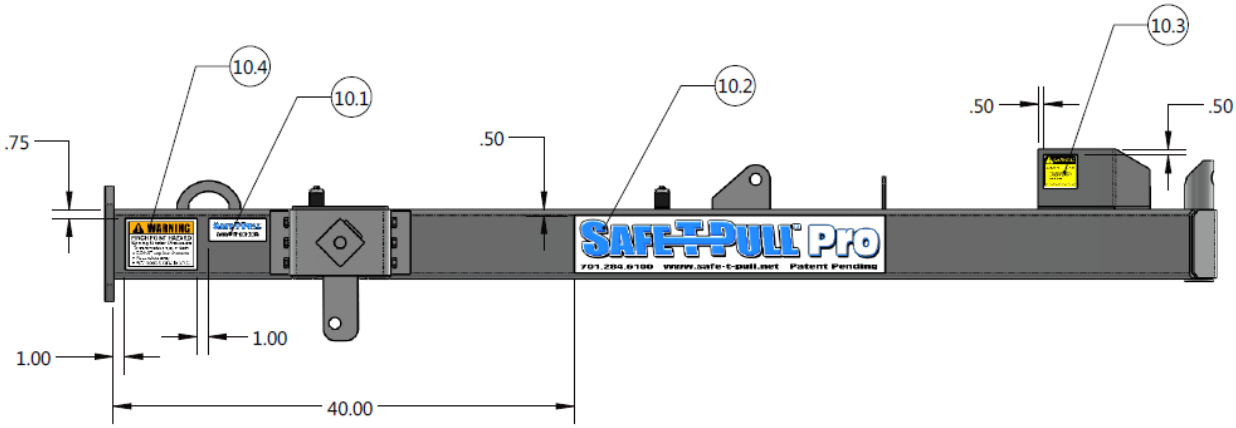


BOM # 3

SAFE-T-PULL PRO PULLER, SPRING TONGUE ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FP-15025	STP PRO PULLER, PIVOT TONGUE WELDMENT	1
2	XP-114	STP COMMON PULLER, D20 SPRING (353)	1
3	CP-134	STP COMMON PULLER, SPRING STOP PLATE	2
4	CP-15132	STP COMMON PULLER , SPRING TONGUE CAP PLATE	1
5	FP-181	STP PRO PULLER, SPRING KEY (D20 - 353 SPRING)	1
6	CP-15180	STP COMMON PULLER, 353 SPRING BACK PLATE	1

Warning! All stickers should be replaced if worn or unreadable!



BOM #4

SAFE-T-PULL PRO PULLER, STICKER KIT

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
10.1	XP-295	STP PRO PULLER, LABEL - SERIAL NUMBER	2
10.2	XP-296	STP PRO PULLER, LABEL - PRO LABEL	2
10.3	XP-290	STP COMMON PULLER, LABEL - MOVING HYD	2
10.4	XP-292	STP COMMON PULLER, LABEL - PINCH POINT / SPRING	2

6. Troubleshooting and FAQs

1) Does the Safe-T-Pull PRO come with everything I need to use it?

Yes, all Safe-T-Pull products come ready for use. On the hydraulic hoses, we install ½" pioneer fittings for quick coupling. All the required fasteners, hardware, and hydraulic lines are included.

NOTE: **Hydraulic lines will be empty when you receive your Safe-T-Pull PRO. Fill lines before use.**

2) What tools will I need to install the Safe-T-Pull PRO?

Recommended tools

- • Lifting device (fork lift, skid-steer, cherry picker)
- Chain or lifting strap
- Two ¾" wrenches or sockets
- Two 11/16" wrenches
- Two 1 1/8" wrenches or sockets
- One 1 1/2" wrench or socket
- One 1 7/16" wrench or socket

WARNING: **All lifting equipment must be rated for 1,000 pounds (453.5kg) or more!**

3) How do I install my Safe-T-Pull PRO on my pull vehicle?

Step 1: Use a lifting device to align the tongue of the Safe-T-Pull PRO into your tractor's drawbar.
Step 2: Slide your tractor's pin into the drawbar. Be sure to use the correct bushings according to your drawbar width and pin size.
Step 3: Tighten the three Drawbar Side-Clamp bolts to lock the Safe-T-Pull PRO into place. Be sure to use the correct shims according to your drawbar width.
Step 4: Push your four hydraulic hoses into your tractor's ports;
Step 5: Extend and retract both the Lift Cylinder and the Pin Cylinder several times to fill the lines with hydraulic fluid.

NOTE: For more detailed information please refer to the Installation section of this document.

4) My draw bar is 3" wide with a 1 ½" pin; will the Safe-T-Pull PRO fit?

Yes, you will have to use a bushing on your pin to avoid unnecessary wear. None of the included shims will be used.

5) My drawbar is 4" wide with a 2" pin, will the Safe-T-Pull PRO fit?

Yes, no bushings are required at this size. You will need to use one of the included shims per side.

6) My draw bar is 5" wide with 2 ¾" pin; will the Safe-T-Pull PRO fit?

Yes, you will have to use a 2" pin and use bushings on your drawbar to avoid unnecessary wear. You will need to use two of the included shims per side.

7) How long should I expect my Safe-T-Pull PRO to last?

The first Safe-T-Pulls are over 20 years old and are still in use. Depending on how well your Safe-T-Pull PRO is cared for and how often it is used, very few parts will need to be replaced. Some replacement parts will wear out faster than others.

8) Is there something to cushion the pull?

The Safe-T-Pull PRO has a shock absorbing spring built into the internals of the pulling arm. This technology allows the puller to flex and absorb the "jerk" upon take off, acting like a nylon rope without the dangers and limitations.

9) Can I order replacement parts if something were to wear out?

Yes. Please contact your local dealer or manufacturer representative to order your replacement parts. Most of our parts are made in-house and are in stock.

10) How soon can I expect my Safe-T-Pull PRO?

Once the order has been placed with your dealer or manufacturer representative, we will do our best to get your product to you as quickly as possible. Most of our orders will ship same-day. However, during our busy season (September thru November) production may be backed up by over two weeks. To avoid any delays it is best to place orders early.

NOTE: **Freight shipments to some parts of the country may take up to a week or more.**

11) How soon can I expect my Safe-T-Pull replacement parts?

All of our replacement parts are in stock and will usually be shipped same-day. There is a risk of parts being out of stock during our busy season (September thru November). To avoid any delays it is best to place orders early.

NOTE: **Freight shipments to some parts of the country may take up to a week or more.**